SECRET

NPIC/P&DS-229/64
10 December 1964

MEMORANDUM FOR: Assistant for Administration, NPIC

SUBJECT : Monthly Activity Report

GENERAL STAFF OCCURRENCES

During this reporting period the Assistant for Plans and Development and selected Staff members received security and technical briefings on two more planned acquisition programs. The rate of addition of such programs places increasing emphasis on P&DS efforts to augment the staff of the Plans Branch. Toward this end [redacted] late of PID, was transferred to the Plans Branch and arrangements were made for the arrival shortly of the DIA Plans Branch Chief, [redacted] 50X1 50X1

[redacted] attended the regular monthly meeting of the CIA Research and Development Review Board with Mr. Lundahl and arrangements were made for the RDRB alternate members to visit the P&DS area and tour the Exploratory Development Laboratory on 19 November. 50X1

[redacted] of the Aerospace Corporation, El Segundo, California, was briefed on the functions of the Plans and Development Staff at the request of [redacted] also of Aerospace Corporation was briefed last month at the request of the (S) NRO. 50X1 50X1

[redacted] was interviewed by [redacted] and [redacted] as the DIA nominee for the job of Deputy Assistant for Plans and Development. 50X1 50X1

[redacted] travelled to Rochester, N.Y. to visit the research facilities of the Xerox Corporation. The visit was arranged by [redacted] who was formerly assigned to NPIC and now is employed by Xerox. 50X1 50X1

DEVELOPMENT BRANCH

Specific steps have been taken to alleviate the administrative workload cited in the previous monthly report. As an interim measure it is hoped that another clerk-typist may be brought aboard in order

SECRET

to relieve project monitors from some clerical and messenger tasks which detract from their direct technical endeavours. In order for more time to be available for getting this year's program under contract, reduction in the routine contract monitoring visit from monthly to bi-monthly has been implemented. Accordingly, the standard frequency for the contract inspection report will also be reduced and staggered in order to more evenly distribute the clerical workload. The standard trip report, so necessary to the documentation of contractual milestones and trouble-spots, will be comprehended on the Inspection Report by the addition of brief descriptive statements of important observations. The feasibility of setting up a travel system, which will eliminate all written work on the monitor's part except the voucher, is being investigated. The Staff Executive Officer has been requested to review security requirements and procedures in hopes that simpler solutions to the pre-contract contact and cover problems can be effected.

This month the Branch's inter-component liaison plan became operational. Formal assignments were made to Branch personnel and letters of notification were sent out to all divisions and staffs. This does not constitute a new activity, but extends and establishes the scope that has existed since the Development Branch was organized. 50X1

[redacted] accompanied [redacted] to a meeting 50X1
called by the Office of Logistics to reaffirm existing regulations and to promulgate new instructions, binding upon the Plans and Development Staff and particularly on the Development Branch, which will necessitate the preparation of additional precontract forms. The significance of the DD/S directive is still under study.

During the month Branch travel involved 47 man days and 27 facility visits. During the week of 16 - 20 November, Branch monitors arranged for inspections of a majority of our West Coast contracts by [redacted] including visits to [redacted] and the Skunk Works. 50X1

The major contractual actions during the month were as follows: 50X1

50X1

27 October (not previously reported) - Contract was let with Richards Corporation for a Light Table for a PI Fly-Away Kit.

1 November - Contract was let with HRB Singer for the development of Advanced Light Tables.

1 November - Fairchild Camera and Instrument Co. Viewer Maintenance Contract was cancelled.

2 November - Geophysics Corporation delivered a Mann 880 Comparator ordered for DIAAP-1P.

6 November - Itek, Vidya Division, delivered the final report on the Night Light Pattern Photography Study.

6 November - Texas Instruments delivered the final report on the Collection IR Ground Truth Data.

13 November - Richards Corporation delivered the Special Dynazoom Microscope mounted on a Model 940 Light Table. This item was developed in accordance with a request from TID/TSB.

The maintenance activity for the month included 46 preventive maintenance actions and 44 immediate service actions.

Listed below are statistics relevant to branch operations for the months of October and November:

Proposal Status	Oct.	Nov.
Received	*11	26
In work during month	*52	76
Rejected	1	2
Accepted	1	6
Total carried over	*50	68
Project Approval Request Status		
Completed during month	1	6
Status of Projects Involving R&D Contracts		
Initiated	16	5
In pre-contract phase	44	47
Under contract	87	77
In test and evaluation	8	13
Completed	2	1
Cancelled	2	2
Total Projects Carried Over	135	137

*Corrected data

Status of Projects Not Involving Contracts

	Oct.	Nov.
Initiated	10	23
In work during month	51	68
Completed	5	3
Cancelled	1	1
Total Projects Carried Over	45	64

50X1

Fiscal Status of R&D Contracts	Number		Dollar Value	
	Oct.	Nov.	Oct.	Nov.
Pending Obligations	10	13		
Contracted during month	0	3		
Contracted FY-65 (thru Nov.)	10	13		
Completed during month	1	5		
Current total R&D Contracts	71	69		

PLANS BRANCH

[redacted] concentrated his efforts in compiling the new Periodic Technical Development Report in order that a publication in January can be realized. 50X1

[redacted] joined the Plans Branch late in the period and has taken over the responsibility for coordinating the various aircraft reconnaissance systems from which the Center might receive material for exploitation. Priority was given to the Navy's RA-5C system which could be flown soon. Several of these systems include multisensor capabilities. 50X1

Considerable effort was given to devising and coordinating within the Center an evaluation of high altitude color photography from the 112-A Camera System, Project HI-C, in response to an (S)NRO requirement. This effort was climaxed by a meeting called by the (S)NRO and attended by representatives from NPIC, SAC, DIA, CIA, AMS, TAC, and NRTSC to determine if the results of the evaluation warranted a continuation of effort and testing in the field of color photography. The decision of [redacted] (S)NRO, was to continue test flights and PI evaluations. This is highly significant to the Center since the success of this color test mission indicates that its operational use could be not far off. Much planning and preparation will be required by the Center in preparation for this event. A full report on this activity is forthcoming from the Plans Branch. 50X1

Upon receipt of a report that an infrared reconnaissance mission over China had been flown and that the material would be sent to the Center, [redacted] coordinated preparations for the receipt of the imagery and made available to key Center personnel the sparse information that was available on the characteristics of the IR System being used. This was the first IR mission to be exploited by the Center. Although there is little knowledge available on IR, the Center is as well prepared to exploit it as the available facts will allow. 50X1

Coordination of preparations for the Type I test was all but concluded. A final test flight was requested in order that the Center could have a "pilot run" on the exploitation of the material in order to determine if all problems have been solved. The flight was postponed indefinitely.

EXPLORATORY DEVELOPMENT LABORATORY BRANCH

The writing of the final report on the phase grating study continued during November. Additional experimental work was required to substantiate some theoretical aspects. Microdensitometric traces were made of dye-infused gratings to ascertain line-shapes, and the results were verified photomicrographically. It is hoped that this report will be completed and released by the end of December.

[redacted] completed the draft of the EDL microdensitometer operating manual. He conducted additional studies to determine the modulation transfer function of the instrument as affected by slit width. The manual will probably be released in December. [redacted] drafted a final report for the film rewind unit which was sent to PSD/ICB. He also completed a draft of the final report on the auxiliary vacuum system study for TID. Both of these reports will be released in December. 50X1 50X1

[redacted] was assigned responsibility for the investigation of etched-glass diffraction gratings. If a successful technique is developed, these gratings could replace the photographic phase gratings recently developed in the laboratory. While there is some promise in this technique it is felt that the glass etching technique is probably better suited to reticle making. However, since the possibility for high dispersion does exist, the technique will be fully investigated. It is expected that the project can be completed by the end of January. 50X1

The TSD design for the film platen on the Richardson viewer was reviewed by the staff. It is felt that minor modifications to the

presently-installed platens would serve as well if not better. [redacted] investigated the design possibilities and submitted a report with his design concepts and recommendations. This modification is currently being evaluated. 50X1

[redacted] provided photographic assistance to the Plans Branch in the preparation of the "Technical Development Program" publication. He also photographed equipment for display purposes at the request of the Development Branch. 50X1

[redacted] of Technical Operations, Inc., gave a detailed talk on the subject of holograms for members of the staff. This talk provided technical background for several of the proposals being evaluated by the Development Branch. 50X1

Three tours of the laboratory were given during the month for personnel from outside NPIC. It is estimated that a total of twelve man hours was spent by laboratory personnel for this purpose. Approximately thirty man hours were spent by the laboratory staff in providing technical consultation to the Development Branch.

The third monthly newsletter for the Image Quality Evaluation Program was prepared and distributed. In addition to discussing contractor performance, this letter set up a meeting for 11 and 12 January 1965. It is planned to hold this meeting on an unclassified basis. A list of prospective attendees has been prepared and is presently being processed through SS/SB to determine the feasibility of holding such a meeting in NPIC.

[redacted] began a course in modern optics held at NSA, Fort Meade, Maryland, under the sponsorship of Bolt, Beranek, and Newman, Inc. of Cambridge, Massachusetts. After some preliminary meetings this course will require one day per month for nine months and will review the current advances in the field of optics on a rigorous mathematical basis. 50X1

[redacted] made two trips to coordinate NPIC's Image Quality Evaluation Program with the CORN Program. The aim of these meetings is the establishment of meaningful physical measurements at the ground target so that the effects of the atmosphere on CORN engineering passes can be assessed. It is expected that the present meteorological measurement program will eventually be discontinued. 50X1

[redacted] travelled to Eastman Kodak, Macbeth Corporation, and Perkin-Elmer in support of the ultra-violet spectrophotometric investigation of photographic materials. Of special interest was 50X1

the equipment for UV densitometry at the Macbeth Corporation. This equipment would be of use in assessing the sensitometric characteristics of positive materials ultimately to be used in the Consolidated Systems Ultra-Violet Viewer. [redacted] continued working on the Adjacency Effects Study, concentrating on the calibration of the special processor recently completed. He continued collateral work on the generation and analysis of filmed low-frequency sine-waves. A new technique was developed for providing higher-modulated waves, and its exploitation will be the subject investigation during December. In anticipation of the incorporation of these sine-waves in the adjacency study, [redacted] designed and fabricated a special holder for the processor. It is expected that the reproducibility and reliability of this processing unit will be established in December. 50X1 50X1

[redacted] 50X1

Assistant for Plans and Development

Distribution:

Orig & 1 - Addressee